Monthly Progress Report

Submitted to: Mr. Frank Battaglia, Project Manager
USEPA Region I
Waste Management Building
90 Canal Street
Boston, MA 02114

Submitted by: Ms. Diane Leber, Project Coordinator
CIBA-GEIGY Corporation
444 Sawmill River Road
Ardsley, NY 10502

Pursuant to: RCRA I-88-1088

Facility Site: Cranston, RI

Period Covered: December 1992 (28 November 1992 – 25 December 1992)*

Date Submitted: 10 January 1993

1.0 SUMMARY

This is the thirtieth monthly progress report. Four significant events occurred this month.

Stabilization Investigation. The 30-day constant rate test began on 12/1/92; groundwater sampling conducted during this test also began on 12/1/92. Evaluation of data from this test will determine whether the flush/surge test is warranted. Operation of the modified pretreatment system began. Effluent samples from the pretreatment system were collected on 12/4/92 and 12/16/92 and were analyzed for the parameters required by the Cranston POTW. The results of the scheduled sampling performed on 11/25/92 and 12/4/92 (Attachments A and B) were submitted to the Cranston POTW via Self Monitoring Reports. Sampling of selected locations within the modified pretreatment system began in order to evaluate the effectiveness of major unit operations. Validation of the analytical data for groundwater samples from the newly installed monitoring wells in the Production Area continued. The newly installed piezometers in the Production Area were surveyed on 12/4/92. Reduction and interpretation of the data from the HIVAC™ extraction pilot test and from the 72-hour tests of RC-1 and RC-2 continued. Planning for other stabilization/Phase II activities continued.

Changes in Plan: While data from the 30-day constant rate test are being analyzed and evaluated, additional short-term aquifer tests will be performed on selected monitoring wells and piezometers to help design the groundwater capture system. [Changes in plan are discussed in Section 8.0.]

Project Management. On 12/3/92, USEPA granted verbal approval to modify the aquifer testing plan (as discussed in the November 1992 Monthly Report), possibly by pumping low volumes of water from MW-1S or MW-2S. Tutela Engineering Associates personnel visited the site on 12/15–16/92 to inspect the pretreatment system and sample the system effluent. A letter from Tutela Engineering Associates (Attachment C) approved increasing the pretreatment system effluent flow; revisions to the Industrial Wastewater Discharge Permit were received from Tutela Engineering Associates (Attachment D). In a letter to Tutela Engineering Associates, CIBA-GEIGY requested an extension of the permit to discharge water to the Cranston POTW beyond 12/31/92 (Attachment E). The USEPA conditionally approved the Stabilization Work Plan; revisions to the Quality Assurance Documents: Supplement were completed.

*As agreed, the reporting period will be monthly through the fourth Friday of the month.

Water Level Monitoring. Monthly groundwater level monitoring continued. Processing groundwater level data from the automatic recorders (transducers) continued.

Hydrological Investigation. Stage height measurements of the river continued. Processing river stage data from the automatic recorders (transducers) continued.

2.0 TASKS AND ACTIVITIES COMPLETED

The sampling and other activities (subtasks) that were completed are reported here.

2.1 Sampling Activities Completed

The following samples were collected:

Sampling Activity	Location(s)	Date(s) Sampled	No. of Samples	Date(s) Sent for Analysis	Analysis
Groundwater Sampling, 30-Day Test	RC-1	12/1–4/92	5	12/2–4/92	A
	RC-1	12/8/92	1	12/8/92	A
	RC-1	12/15/92	1	12/15/92	A
	RC-1	12/22/92	1	12/22/92	A
	RC-2	12/1–4/92	5	12/2–4/92	A
	RC-2	12/8/92	1	12/8/92	A
	RC-2	12/15/92	1	12/15/92	A
	RC-2	12/22/92	1	12/22/92	A
	MW-1S	12/1/92	1	12/2/92	A
	MW-1S	12/8/92	1	12/8/92	A
	MW-1S	12/15/92	1	12/15/92	A
	MW-2S	12/15/92	1	12/15/92	A
	influent sample port	12/22/92	1	12/22/92	A
Pretreatment System Sampling	influent sample port	12/2–4/92	3	12/3–4/92	B
	influent sample port	12/5/92	1	12/7/92	B
	influent sample port	12/16/92	1	12/16/92	B
	T-4	12/2–4/92	3	12/3–4/92	C
	T-4	12/5/92	1	12/7/92	C
	T-4	12/16/92	1	12/16/92	C
	reject line	12/2–4/92	3	12/3–4/92	C
	reject line	12/5/92	1	12/7/92	C
	reject line	12/16/92	1	12/16/92	C
	T-5	12/2–4/92	3	12/3–4/92	B
	T-5	12/5/92	1	12/7/92	B
	T-5	12/16/92	1	12/16/92	B
	stripper sump	12/2–4/92	3	12/3–4/92	B
	stripper sump	12/5/92	1	12/7/92	B
	stripper sump	12/16/92	1	12/16/92	B
	effluent sample port	12/2–3/92	2	12/3/92	B
	effluent sample port	12/5/92	1	12/7/92	B
	effluent sample port	12/4/92	1	12/4/92	D
	effluent sample port	12/16/92	1	12/16/92	D

A = analyzed for Appendix IX volatiles and selected metals by PACE Laboratories

B = analyzed for volatile organics (Method 624), semi-volatile organics (Method 625), and selected metals by CIBA-GEIGY Laboratories

C = analyzed only for selected metals by CIBA-GEIGY Laboratories

D = analyzed for parameters required by the Cranston POTW by Rhode Island Analytical Laboratories

2.2 Other Activities Completed

The other activities (subtasks) completed during this reporting period were described in Section 1.0.

3.0 JEOPARDY TASKS (scheduled tasks not completed)

No tasks were in jeopardy as of 25 December 1992.

4.0 OTHER TASKS UNDERWAY (and on schedule)

The tasks that were underway (and on schedule as of 25 December 1992) were described in Section 1.0.

5.0 DATA OBTAINED

Groundwater level data have been obtained but have not yet been peer reviewed. Continuous groundwater level data from the automatic recorders (transducers) were downloaded but have not yet been processed. Stage height measurements of the river were obtained but have not yet been reviewed. Analytical data from groundwater sampling of the newly installed monitoring wells in the Production Area will be reported after validation is completed. Recovery test data from the newly installed piezometers in the Production Area have been obtained but have not yet been reduced. Data obtained from sampling selected locations within the pretreatment system (to evaluate the effectiveness of major unit operations) were received but have not yet been reduced. Analytical results for the effluent samples (collected on 11/25/92 and 12/4/92) were received; the results indicated that CIBA-GEIGY is in compliance with the discharge limitations set by the Cranston POTW. These results are included in Attachments A and B.

6.0 PROBLEM AREAS

The resolved, new, potential (i.e., anticipated or possible), and outstanding (i.e., still unresolved) problem areas are reported here.

6.1 Resolved Problem Areas

No new problem areas were resolved during this reporting period.

6.2 New Problem Areas

No new problem areas remained unresolved during this reporting period.

6.3 Potential Problem Areas

No potential problem areas were identified during this reporting period.

6.4 Outstanding Problem Areas

No problem areas remained unresolved during this reporting period.

7.0 SCHEDULE OF TASKS (next two months)

The projected schedule is provided here. It covers the tasks to be performed in the next two months (January and February 1993), along with other comments or considerations.

Target Date	Task#	Task	Comments/Considerations
ongoing	—	Stabilization	
ongoing	9	Project Management	
ongoing	10	Data Management	
ongoing	11	Project Administration	
ongoing	12	Quality Assurance	
ongoing	13	Health & Safety Assurance	

8.0 CHANGES IN WORK PLAN

One change was made to the Work Plan during this reporting period.

Additional aquifer tests. While the data from the 30-day constant rate test are being analyzed and evaluated (to determine whether the flush/surge test is warranted), additional short-term aquifer tests will be performed on selected existing monitoring wells and piezometers to provide additional data for designing the final groundwater capture system.

9.0 OTHER COMMENTS

On 12/10/92, approximately 100 tons of sewage sludge and contaminated soils originating from the 9/28/92 sewage release along the bulkhead were disposed of at Chemical Waste Management's secure landfill at Model City, New York.

The plans going forward into January and February include:

- completing the stabilization investigation field activities,
- beginning to develop the Stabilization Investigation Report and Design Concepts Proposal,
- beginning Phase II soil sampling activities, and
- additional planning for future investigations.

The following documents are appended:

- Attachment A — Analytical Results for Pretreatment System Samples Collected on 11/25/92
- Attachment B — Analytical Results for Pretreatment System Samples Collected on 12/4/92
- Attachment C — Letter from Tutela Engineering Associates Approving the Increase of Effluent Flow
- Attachment D — Revisions to the Industrial Wastewater Discharge Permit from Tutela Engineering Associates
- Attachment E — Letter to Tutela Engineering Associates Requesting Extension of the Industrial Wastewater Discharge Permit

ATTACHMENT A

Analytical Results for Pretreatment System Samples Collected on 11/25/92

CIBA-GEIGY Facility
Cranston, Rhode Island

R.I. Analytical

Specialists in Environmental Services

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
201 Willowbrook Blvd.
P.O. Box 290
Wayne , NJ 07470
Attn: Mr. Mark Houlday

DATE RECEIVED: 11/25/92
DATE REPORTED: 12/01/92
P.O. #:
INVOICE NUMBER: E6724

SAMPLE DESCRIPTION: Six (6) wastewater samples labelled Ciba-Geigy, Cranston

---

Subject samples have been analyzed by our laboratory with the attached results.

Reference: Guidelines Establishing Testing Procedures For The Analysis of Pollutants, 40CFR, Part 136, July 1986.

If you have any questions regarding this work or if we may be of further assistance, please contact us.

Approved by:

Michael S. Rose
Laboratory Manager

Anthony E. Perrotti
President

WCC:cmc

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
DATE RECEIVED: 11/25/92 **P.O. #:**
DATE REPORTED: 12/01/92 **INVOICE #: E6724**

PARAMETER	**SAM. #1**	**SAM. #2**	**SAM. #3**
Volatile Organic Compounds (Method #624):	ND	ND	ND

PARAMETER	**SAM. #4**	**SAM. #5**
Volatile Organic Compounds (Method #624):	ND	----
Semi- Volatile Organic Compounds (Method #625):	-----	ND

Note: A list of volatile organic compounds and semi- volatile organic compounds tested for and their detection limits is attached.

Sample Description:
Sample 1- Effluent -4A
Sample 2- Effluent -4B
Sample 3- Effluent -4C
Sample 4- Effluent -4D
Sample 5- Composite of Effluent 4-1,4-2, 4-3, and 4-4

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
DATE RECEIVED: 11/25/92 **P.O. #:**
DATE REPORTED: 12/01/92 **INVOICE #: E6724**

PARAMETER	**EFFLUENT 4**
Total Cyanide	<0.01 mg/l
Total Metals:	
Antimony	<0.005 mg/l
Arsenic	<0.005 "
Beryllium	<0.001 "
Cadmium	<0.01 "
Chromium	<0.03 "
Copper	<0.05 "
Lead	<0.04 "
Manganese	<0.02 "
Mercury	<0.0005 "
Nickel	<0.02 "
Silver	<0.02 "
Zinc	<0.02 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
Date Received: 11/25/92
Date Reported: 12/01/92
Invoice #: E6724

Volatile Organic Compounds
Method #624

chloromethane
bromomethane
vinyl chloride
dichlorodifluoromethane
chloroethane
methylene chloride
trichlorofluoromethane
1,1-dichloroethylene
1,1-dichloroethane
trans-1,2-dichloroethylene
chloroform
1,2-dichloroethane
1,1,1-trichloroethane
carbon tetrachloride
bromodichloromethane
1,2-dichloropropane
cis-1,3-dichloropropylene
trichloroethylene
trans-1,3-dichloropropylene
1,1,2-trichloroethane
dibromochloromethane
bromoform
tetrachloroethylene
1,1,2,2-tetrachloroethane
chlorobenzene
2-chloroethyl vinyl ether
dichlorobenzenes
benzene
toluene
ethylbenzene
xylenes

Detection Limit: 1 μg/l

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
Date Received: 11/25/92
Date Reported: 12/01/92
Invoice #: E6724

SEMI-VOLATILE ORGANIC COMPOUNDS
Method #625

Base/Neutral Extractables:

acenaphthene
acenaphthylene
anthracene
benzidine
benzo(a)anthracene
benzo(b)fluoranthene
benzo(k)fluoranthene
benzo(g,h,i)perylene
benzo(a)pyrene
bis(2-chloroethyl)ether
bis(2-chloroethoxy)methane
bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate
4-bromophenyl phenyl ether
butylbenzyl phthalate
2-chloronaphthalene
4-chlorophenyl phenyl ether
chrysene
dibenzo(a,h)anthracene
di-n-butyl phthalate
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3'-dichlorobenzidine
diethyl phthalate
dimethyl phthalate
2,4-dinitrotoluene
2,6-dinitrotoluene
di-n-octyl phthalate
1,2-diphenylhydrazine
fluoranthene
fluorene
hexachlorobenzene
hexachlorobutadiene
hexachlorocyclopentadiene
hexachloroethane
Indeno(1,2,3-cd)pyrene
isophorone
naphthalene
nitrobenzene
N-nitrosodimethylamine
N-nitrosodiphenylamine
N-nitrosodi-n-propylamine
phenanthrene
pyrene
1,2,4-trichlorobenzene

Acid Extractables:

4-chloro-3-methylphenol
2-chlorophenol
2,4-dichlorophenol
2,4-dimethyl phenol
2-methyl-4,6-dinitrophenol
2,4-dinitrophenol
2-nitrophenol
4-nitrophenol
pentachlorophenol
phenol
2,4,6-trichlorophenol

DETECTION LIMIT: 10 µg/l

R.I. ANALYTICAL LABORATORIES, INC.

ATTACHMENT B

Analytical Results for Pretreatment System Samples Collected on 12/4/92

CIBA-GEIGY Facility
Cranston, Rhode Island

R.I. Analytical

Specialists in Environmental Services

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
Attn: Mr. Mark Houlday
201 Willowbrook Blvd.
P.O. Box 290
Wayne, NJ 07470

DATE RECEIVED: 12/04/92
DATE REPORTED: 12/11/92
P.O. #:
INVOICE NUMBER: E6892

SAMPLE DESCRIPTION: Six (6) wastewater samples labelled Ciba-Geigy, Cranston

---

Subject samples have been analyzed by our laboratory with the attached results.

Reference: Guidelines Establishing Testing Procedures For The Analysis of Pollutants, 40CFR, Part 136, July 1986.

If you have any questions regarding this work or if we may be of further assistance, please contact us.

Approved by:

Michael S. Rose
Laboratory Manager

Anthony E. Perrotti
President

wcc:sf

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
DATE RECEIVED: 12/04/92 **P.O. #:**
DATE REPORTED: 12/11/92 **INVOICE #:** E6892

PARAMETER	**SAM. #1**	**SAM. #2**	**SAM. #3**
Volatile Organic Compounds (Method #624):	ND	ND	ND

PARAMETER	**SAM. #4**	**SAM. #5**
Volatile Organic Compounds (Method #624):	ND	----
Semi- Volatile Organic Compounds (Method #625):	-----	ND

Note: A list of volatile organic compounds and semi- volatile organic compounds tested for and their detection limits is attached.

Sample Description:
Sample 1- Effluent -5A
Sample 2- Effluent -5B
Sample 3- Effluent -5C
Sample 4- Effluent -5D
Sample 5- Composite of Effluent 5-1,5-2, 5-3, and 5-4

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
DATE RECEIVED: 12/04/92 **P.O. #:**
DATE REPORTED: 12/11/92 **INVOICE #:** E6892

PARAMETER	**EFFLUENT 5**
Total Cyanide	0.02 mg/l
Total Metals:	
Antimony	<0.005 mg/l
Arsenic	<0.005 "
Beryllium	<0.001 "
Cadmium	<0.01 "
Chromium	<0.03 "
Copper	<0.05 "
Lead	<0.04 "
Manganese	0.04 "
Mercury	<0.0005 "
Nickel	<0.02 "
Silver	<0.02 "
Zinc	<0.02 "

R.I. ANALYTICAL LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
Date Received: 12/04/92
Date Reported: 12/11/92
Invoice #: E6892

Volatile Organic Compounds
Method #624

chloromethane
bromomethane
vinyl chloride
dichlorodifluoromethane
chloroethane
methylene chloride
trichlorofluoromethane
1,1-dichloroethylene
1,1-dichloroethane
trans-1,2-dichloroethylene
chloroform
1,2-dichloroethane
1,1,1-trichloroethane
carbon tetrachloride
bromodichloromethane
1,2-dichloropropane
cis-1,3-dichloropropylene
trichloroethylene
trans-1,3-dichloropropylene
1,1,2-trichloroethane
dibromochloromethane
bromoform
tetrachloroethylene
1,1,2,2-tetrachloroethane
chlorobenzene
2-chloroethyl vinyl ether
dichlorobenzenes
benzene
toluene
ethylbenzene
xylenes

Detection Limit: 1 μg/l

CERTIFICATE OF ANALYSIS

Woodward-Clyde Consultants
Date Received: 12/04/92
Date Reported: 12/11/92
Invoice #: E6892

SEMI-VOLATILE ORGANIC COMPOUNDS
Method #625

Base/Neutral Extractables:

acenaphthene
acenaphthylene
anthracene
benzidine
benzo(a)anthracene
benzo(b)fluoranthene
benzo(k)fluoranthene
benzo(g,h,i)perylene
benzo(a)pyrene
bis(2-chloroethyl)ether
bis(2-chloroethoxy)methane
bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate
4-bromophenyl phenyl ether
butylbenzyl phthalate
2-chloronaphthalene
4-chlorophenyl phenyl ether
chrysene
dibenzo(a,h)anthracene
di-n-butyl phthalate
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3'-dichlorobenzidine
diethyl phthalate
dimethyl phthalate
2,4-dinitrotoluene
2,6-dinitrotoluene
di-n-octyl phthalate
1,2-diphenylhydrazine
fluoranthene
fluorene
hexachlorobenzene
hexachlorobutadiene
hexachlorocyclopentadiene
hexachloroethane
Indeno(1,2,3-cd)pyrene
isophorone
naphthalene
nitrobenzene
N-nitrosodimethylamine
N-nitrosodiphenylamine
N-nitrosodi-n-propylamine
phenanthrene
pyrene
1,2,4-trichlorobenzene

Acid Extractables:

4-chloro-3-methylphenol
2-chlorophenol
2,4-dichlorophenol
2,4-dimethyl phenol
2-methyl-4,6-dinitrophenol
2,4-dinitrophenol
2-nitrophenol
4-nitrophenol
pentachlorophenol
phenol
2,4,6-trichlorophenol

DETECTION LIMIT: 10 µg/l

R.I. ANALYTICAL LABORATORIES, INC.

White Copy Original (Accompanies Samples) Yellow Copy - Collector Pink Copy - RIAL File

R. I. ANALYTICAL LABORATORIES, INC.
41 Illinois Avenue
Warwick, Rhode Island 02888
(401) 737-8500

Analysis Required

Station Number	Time (24 hr)	Cont. ID	Location Description	Sample Type	VOA 624	SEMI VOA 625	12 METALS	CYANIDE	Remarks	Tot. # of Cont.	RIAL Sample ID
	0900		EFF-5A	WATER	X					2	-1
	1100		EFF-5B	"	X					2	-2
	1400		EFF-5C	"	X					2	-3
	1700		EFF-5D	"	X					2	-4
	—		EFF-5-1, 5-2, 5-3, 5-4	"		X			COMPOSITE BEFORE ANALY.	4	-5
	—		EFF-5	"			X	X		2	-6
									Total Numbers of Cont.		

Relinquished By: 12-4-92/1900 Date/Time Received by Signature

Relinquished By: Date/Time Received by Signature

Relinquished By: Date/Time Received by Signature

NOTES:

Laboratory Comments:

Client File No. P.O. No.

Project CIBA GEIGY / WOODWARD - CLYDE CONSULTANTS

Location CRANSTON RI

Collector KENNETH A. KIEVIT

Date of Collection 12-4-92 Sheet 1 of 1

ATTACHMENT C

Letter from Tutela Engineering Associates Approving the Increase of Effluent Flow

CIBA-GEIGY Facility
Cranston, Rhode Island

TUTELA ENGINEERING ASSOCIATES

P. O. BOX 28066
PROVIDENCE, RHODE ISLAND 02908
TEL. (401) 861-5990

DOMENIC V. TUTELA, P.E., PRESIDENT

November 24, 1992

Woodward-Clyde Consultants
201 Willowbrook Blvd.
Wayne, NJ 07470

Attn: Scott Blaha

Re: Approval to Increase Effluent Flow from Ciba-Geigy Site
Industrial Pretreatment Program
Cranston, RI

Gentlemen:

We are writing in response to your firm's amendment request to the Industrial Wastewater Discharge Permit #0321. Upon reviewing your firm's letter of November 17, 1992, we have decided to approve this request, effective the date of this letter. Within the next two weeks, Ciba-Geigy Corp. will be receiving a revision to page DP-8 of its Permit which will reflect an increase in effluent flow from 20 gpm (28,800 gpd) to 60 gpm (86,400 gpd). The maximum discharge allowed by this revision will be 100,000 gpd (about 70 gpm).

This letter shall serve to temporarily grant authority to Ciba-Geigy Corp. to discharge treated groundwater to the Cranston sewer system at an average flow of approximately 60 gpm (86,400 gpd), but not more than 100,00 gpd, until the proper Permit revision is issued.

Should you have any questions regarding this matter, please contact Mr. Alfred J. Tutela of our office at (401)861-5990.

Very truly yours,

TUTELA ENGINEERING ASSOCIATES

for

Domenic V. Tutela, PE
President

cc: Mayor Traficante
R.T. Connaughton
J.W. Migneault
A.J. Tutela

DVT/LVM/mam
#C108
241-21

ATTACHMENT D

Revisions to the Industrial Wastewater Discharge Permit from Tutela Engineering Associates

CIBA-GEIGY Facility
Cranston, Rhode Island

MICHAEL A. TRAFICANTE
MAYOR

JOSEPH W. MIGNEAULT, P.E.
ACTING DIRECTOR
(401) 461-1000

DEPARTMENT OF PUBLIC WORKS
CITY HALL
CRANSTON, RHODE ISLAND 02910

December 10, 1992

Ciba-Geigy Corporation
180 Mill St.
Cranston, RI 02905

Attn: Diane Leber

Re: Revisions to Industrial Wastewater Discharge Permit
Industrial Pretreatment Program
Cranston, RI

Gentlemen:

We are writing with regard to your firm's Industrial Wastewater Discharge Permit #0321. Enclosed, please find revised page DP-8 which should be substituted for the corresponding page in your firm's existing Permit. This revision reflects an increase in the allowable effluent flow rate from 20 gpm (28,800 gpd) to 60 gpm (86,400 gpd).

In accordance with the provisions listed in Section F.9 of your firm's existing Permit, entitled Permit Appeals, your firm (the "Permittee") may petition to appeal this Permit revision within ten (10) days of receipt of this notice. The petition must be in writing; failure to submit a petition for review shall be deemed a waiver of the appeal. In its petition, your firm must indicate the reason(s) for objection to this revision and the alternative(s) it proposes, if any, in lieu of this revision.

This Permit revision shall become effective on December 9, 1992 and shall expire at midnight on December 30, 1992.

Should you have any questions regarding this matter, please contact Mr. Alfred J. Tutela of Tutela Engineering Associates, Inc. at (401)861-5990.

Very truly yours,

DEPARTMENT OF PUBLIC WORKS

Joseph W. Migneault, PE
Acting Director

Encl.

cc: Mayor Traficante
R.T. Connaughton
Tutela Engineering
Woodward-Clyde Consultants

#C108
241-27

CERTIFIED MAIL # P 385 044 954
Return Receipt Requested

TDD 785-2036

SECTION E - Monitoring Conditions (Cont'd)

Location #2: Maximum Day: N/A

Average 4-day: N/A

Monthly Average: N/A

Location #3: Maximum Day: N/A

Average 4-day: N/A

Monthly Average: N/A

Location #4: Maximum Day: N/A

Average 4-day: N/A

Monthly Average: N/A

The Permittee's monitoring schedule is based on a process wastewater flow of about;
* Location #1: 86,400(GPD), Location #2: N/A (GPD), Location #3: N/A (GPD),
Location #4: N/A (GPD). This schedule is subject to change in accordance with
Table I of the Self-Monitoring Report Form should the total process wastewater flow
* discharged by the Permittee at any time exceed; Location #1:100,000(GPD),
Location #2: N/A (GPD), Location #3: N/A (GPD), Location #4: N/A (GPD), or
* fall below; Location #1: 50,000(GPD), Location #2: N/A (GPD), Location #3: N/A
(GPD), Location #4: N/A (GPD).

2. Flow Measurements: If flow measurement is required by this Permit, the appropriate flow measurement devices and methods consistent with approved scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with

* Revised by TEA on 12/9/92.

ATTACHMENT E

Letter to Tutela Engineering Associates Requesting Extension of the Industrial Wastewater Discharge Permit

CIBA-GEIGY Facility
Cranston, Rhode Island

Woodward-Clyde Consultants

Engineering & sciences applied to the earth & its environment

December 10, 1992
87X4660

Mr. Louis V. Mammolette
Tutela Engineering Associates
P.O. Box 28066
Providence, Rhode Island 02908

Re: Extension of Schedule and Permit Expiration Date
Industrial Discharge Permit No. 0321
CIBA-GEIGY, Cranston, Rhode Island

Dear Mr. Mammolette:

In accordance with the requirements of Industrial Discharge Permit No. 0321 (issued to CIBA-GEIGY on September 30, 1992), Permit No. 0321 will expire at midnight on December 31, 1992.

As you are aware, the pilot-scale pretreatment system located at 180 Mill Street was recently modified in November 1992 to process up to 100,000 gallons per day of groundwater from the on-going aquifer testing program. As a result of this system modification, additional operational time is required to obtain long-term hydraulic data, system optimization information and detailed design data for the full-scale pretreatment system. Therefore, Woodward-Clyde Consultants (WCC) requests that an extension be granted to CIBA-GEIGY (Industrial Discharge Permit No. 0321) for the continued discharge of pretreated groundwater to the Cranston POTW during the period of January 01, 1993 through March 31, 1993.

WCC also requests that all other permit conditions remain as originally specified or modified. As presented in previous Self-Monitoring Reports submitted to your office, the concentration of contaminants in the pretreated groundwater discharged to the Cranston POTW has been consistently below the requirements of Industrial Discharge Permit No. 0321.

201 Willowbrook Boulevard • P.O. Box 290 • Wayne, New Jersey 07470
201-785-0700 • 212-926-2878 • Fax 201-785-0023

We look forward to your approval of our permit extension request prior to December 28, 1992 and hope to continue forward on this very important project. If you have any questions or require any additional information, please feel free to call either myself or Mr. Mark Houlday at (201) 785-0700.

Very truly yours,

Joseph J. Corrado, P.E.
Senior Project Engineer

Mark Houlday

Mark Houlday
Project Manager

cc: Ms. Diane Leber, CIBA-GEIGY
Project File